

B3

umbilical provide power to the electronics section and may provide power to the power section. The data transmission conduits in the composite umbilical transmit the data from the downhole sensors to the surface where the data is processed. The propulsion system includes two or more traction modules connected by rams disposed in cylinders for walking the bottom hole assembly up and down the borehole. The propulsion system includes a steerable assembly, controlled from the surface, for changing the trajectory of the borehole.

In the Claims:

Please cancel claims 26-32, 36, 37, and 63.

Please add new claims 64-74.

Please amend claims 1, 17, 19, 20, 23-25, 34, 35, 38, 44-46, 53, 54, and 58 by replacement with rewritten claims 1, 17, 19, 20, 23-25, 34, 35, 38, 44-46, 53, 54, and 58 as follows. A marked up version of the amended claims, showing the changes by underlining of the added text and bracketing of the deleted text, is appended hereto.

- B4 Sub C1
1. (Amended) A system for conveying a well apparatus in a well, comprising:
- a composite tube having a liner with a flow bore to circulate fluids and fibers wrapped in a predetermined pattern around said liner to carry axial load;
 - a conductor disposed in a wall of the composite tube; and
 - a propulsion system attached downhole to said composite tube.
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- Sub 5 B
17. (Amended) An apparatus for performing operations downhole in a well comprising:
- a string of tubular members each having a liner with a flow bore to circulate fluids with fibers wrapped in a predetermined pattern around said liner to carry axial load, said fibers forming a wall of non-metallic fibers having an axial component of modulus of elasticity greater than 500,000 psi;
 - a bottom hole assembly attached downhole to said string; and
 - a power conductor disposed adjacent said fibers in said wall and spirally wound around said liner providing power to said bottom hole assembly.
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Sub D1
19. (Amended) The apparatus of claim 17 wherein said bottom hole assembly includes a propulsion system powered by drilling fluids and moving said string.

20. (Amended) The apparatus of claim 17 wherein said bottom hole assembly includes a bit connected to a three dimensional steering apparatus by an articulated joint to change a bend angle and angular orientation of the bend angle of said bit at said articulated joint.

Sub D1
23. (Amended) The system of claim 21 further including a steerable assembly having an actuator to adjust a bend angle between said formation displacing member and said bottom hole assembly and to adjust an angular orientation of the bend angle to alter the direction of the well path of said bottom hole assembly.

24. (Amended) The system of claim 21 further including a power section and propulsion system driven by fluids and providing power to said bottom hole assembly.

Sub C3
25. (Amended) The system of claim 21 wherein said composite tube has load-carrying layers of fiber engineered to provide tensile strength to said string.

Sub D1
34. (Amended) A bottom hole assembly for controlling the drilling of a borehole from a control at the surface, comprising:

a composite pipe extending into the borehole;

said composite pipe having a data transmission conduit coupled to the control;

a prime mover coupled to said pipe;

a downhole motor for rotating an output shaft having an articulation joint allowing said output shaft to have a bend angle and an angular orientation of said bend angle, said output shaft operatively extending through a steerable assembly to rotate a drill bit;

said steerable assembly sending signals through said data transmission conduit to the control and said steerable assembly receiving signals from the control;

Sub D1
said steerable assembly having an actuator to adjust the bend angle and the angular orientation of the bend angle of the output shaft to direct said drill bit three dimensionally without rotation of said prime mover;

said prime mover adapted to move said drill bit upstream or downstream within the borehole in response to said signals received by said steerable assembly.

B8
35. (Amended) A bottom hole assembly for use in drilling a borehole, comprising:

a pipe attached at one end to the bottom hole assembly and having a communication link disposed within a wall of the pipe;

a downhole motor;

a drill bit;

a propulsion system;

an articulated joint forming a bend angle and an angular orientation of said bend angle and having a first portion connected to said downhole motor and a second portion coupled to said drill bit, said second portion connected to said first portion in a manner to permit said second portion to form said bend angle and said angular orientation; and

a steerable assembly in engagement with said second portion, said steerable assembly being in communication with said communication link to adjust said bend angle and said angular orientation of said bend angle to alter said second portion three dimensionally with respect to said first portion upon command to change the direction of said drill bit.

Sub D1
B9
38. (Amended) A system for conveying a well apparatus in a well, comprising:

a string of composite tubes with one or more conductors disposed in a wall thereof and a flow bore to circulate fluids downhole in the well;

a propulsion system attached downhole to said string; said propulsion system being powered by the circulation fluids circulated through said flow bore and up an annulus formed by the composite tubes;

said propulsion system applying a downstream force on said string pulling said string downhole; and

69
B1

said composite tubes having layers of fibers engineered to cause said composite tubes to withstand axial and yield stress placed on said string.

44. (Amended) The system of claim 38 further including a three dimensional steering apparatus having a universal joint and an actuator for adjusting a bend angle and angular orientation of said bend angle of said universal joint.

45. (Amended) The system of claim 38 further including a drill member and a steerable assembly adjusting a bend angle and angular orientation of said bend angle between said drill member and steerable assembly for controlling the direction of said drill member.

46. (Amended) The system of claim 38 further including:

a drill bit connected to a downhole motor by an articulated joint, said articulated joint having a first portion connected to said downhole motor and a second portion coupled to said drill bit, said second portion connected to said first portion in a manner to permit said second portion to have a bend angle and an angular orientation of said bend angle with respect to said first portion; and

a steerable assembly in engagement with said second portion, said steerable assembly being in communication with said communication link to alter said bend angle and said angular orientation of said second portion with respect to said first portion upon command to change the direction and/or angle of inclination of said drill bit.

53. (Amended) The apparatus of claim 17 wherein said bottom hole assembly includes an electronics section and a propulsion system having a resistivity antenna, said resistivity antenna being connected to said electronics section for measuring the resistivity of the well.

54. (Amended) The apparatus of claim 17 wherein fibers are engineered to cause said string to achieve substantially neutral buoyancy in the fluids in the well.

58. (Amended) The apparatus of claim 53 wherein said propulsion system includes a housing with an aperture receiving said resistivity antenna.
